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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/673,734

Applicant(s)

LAVELLE ET AL.

Examiner

PATRICK A. RYAN

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-59 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 29-59 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/03/2005, 09/24/2007
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This is a First Offices Action in response to Application 10/673734 filed September 29, 2003. Application 10/673734 is a Continuation of Application 09/698916 filed October 27, 2000 now US Patent 6,678,892. Claims 1-28, as originally filed have been canceled as of September 29, 2003. As amended on September 29, 2003, Claims 29-59 are presented for examination.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 29-47, 58, and 59 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-6, 8-20, 23, 25, and 26 of U.S. Patent No. 6,678,892 B1, hereinafter "(892')" in view of Mathias et al. International Application Publication No. WO 00/38951 A1 hereinafter "Mathias".
4. Claims 29, 58, and 59 of the instant application and Claims 1, 25, and 26 of (892') are drawn to the same inventive concept, which is an entertainment unit to be used within the interior of a vehicle. Claims 29, 58, and 59 of the instant application recites the limitation "an assembly housing disposed in an interior of the vehicle", which is obvious over Claims 1, 25, 26 of (892') reciting the limitation "an assembly housing adapted to mount against an interior surface of the vehicle" in view of Mathias.

Mathias teaches a video display system, as shown in Figures 7a-7c, 9, and 10, for use within a vehicle. These figures depict a video display system that can be coupled to a docking member. The docking member is in turn movably coupled to a console that may be mounted at many places within the vehicle (as disclosed on Page 3

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Lines 11-14, with reference to Figure 9). In addition, the console may be mounted to the headliner of the vehicle and a latch on the back of the docking member holds the video display system in a retracted or stowed position (as disclosed on Page 3 Lines 14-16, with reference to Figure 10). The latch assembly permits the video display unit to be uncoupled from the docking member (as disclosed on Page 3 Lines 16-18, with reference to Figures 7a-7c).

In view of the teachings of Mathias, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly housing mounted against an interior surface of a vehicle (Claim 1 of (892')) so that the assembly housing is disposed in an interior of the vehicle (Claim 29 of instant application) because Mathias discloses a high desirability "to provide an LCD/DVD player which can be quickly and easily removed from its associated console so that the entire unit can be used outside of the vehicle" (on Page 2 Lines 19-21). Mathias teachings show that having a video display system with the capability to be used anywhere with in a vehicle or outside of the vehicle provides the user with a versatile product that may be customized to the users needs, which is a desirable characteristic.

5. Claim 29 of the instant application further recites the limitation "wirelessly and simultaneously transmit a plurality of audio programs to a plurality of wireless headphone sets" which is obvious over Claim 1 of (892') reciting the limitation "wirelessly and simultaneously transmit a plurality of audio programs from each of a plurality of input devices to a plurality of wireless headphones."

6. Both Claim 29 of the instant application and Claim 1 of (892') recite the limitation "transmit a plurality of audio programs." In addition, both Claim 29 of the instant application and Claim 1 of (892') recite the limitation "a bus adapted to couple at least one of video and audio signals from each of a plurality of input devices." The transmission of "a plurality of audio programs" as recited in Claim 29 of the instant application may be transmitted from "a plurality of input devices" because "[the] bus adapted to couple" may accommodate "a plurality of input devices". Therefore Claim 29 of the instant application and Claim 1 of (892') have obvious variants in structure, but the structure in each case has the capability to perform the same intended function.

7. Claim 30 of the instant application corresponds to Claim 2 of (892').
8. Claim 31 of the instant application corresponds to Claim 3 of (892').
9. Claim 32 of the instant application corresponds to Claim 4 of (892').
10. Claim 33 of the instant application corresponds to Claim 5 of (892').
11. Claim 34 of the instant application corresponds to Claim 6 of (892').
12. Claim 35 of the instant application corresponds to Claim 8 of (892').
13. Claim 36 of the instant application corresponds to Claim 9 of (892').
14. Claim 37 of the instant application corresponds to Claim 11 of (892').
15. Claim 38 of the instant application corresponds to Claim 12 of (892').
16. Claim 39 of the instant application corresponds to Claim 13 of (892').
17. Claim 40 of the instant application corresponds to Claim 14 of (892').
18. Claim 41 of the instant application corresponds to Claim 15 of (892').
19. Claim 42 of the instant application corresponds to Claim 16 of (892').

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- 20. Claim 43 of the instant application corresponds to Claim 17 of (892').
- 21. Claim 44 of the instant application corresponds to Claim 18 of (892').
- 22. Claim 45 of the instant application corresponds to Claim 19 of (892').
- 23. Claim 46 of the instant application corresponds to Claim 20 of (892').
- 24. Claim 47 of the instant application corresponds to Claim 23 of (892').
- 25. Claim 58 of the instant application corresponds to Claim 25 of (892').
- 26. Claim 59 of the instant application corresponds to Claim 26 of (892').

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claims 29-36, 39-58, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy US Patent (5,610,822) in view of Mathias et al. International Application Publication (WO 00/38951 A1) "Mathias" and Sitnik US Patent (6,300,880 B1).
29. In regards to Claim 29, Murphy teaches an entertainment unit for a vehicle (shown in Fig. 3, as described in Col. 5 Lines 8-21), comprising: a bus adapted to couple at least one of video and audio signals from each of a plurality of input devices, wherein the bus comprises a video bus and an audio bus (scheduler/controller 24, as

described in Col. 4 Lines 22-33 is use to interface the various input and output devices by way of lines 29, 31, 33, 35, and 37);

Murphy teaches a display a device that is mounted on the back of each seat of the vehicle (as shown in Fig. 3). The display device is operatively coupled to the video bus and adapted to reproduce the video signals (as seen in Fig. 2, scheduler/controller 24 is in connection with display units 34a-34n by way of line 35, as described in Col. 3 Lines 10-15), but Murphy does not teach that an assembly housing disposed in an interior of the vehicle or at least one display device that is houseable in the assembly.

In a similar field of invention, Mathias teaches a video display system, as shown in Figures 7a-7c, 9, and 10, for use within a vehicle. These figures depict a video display system that can be coupled to a docking member. The docking member is in turn movably coupled to a console that may be mounted at many places within the vehicle (as disclosed on Page 3 Lines 11-14, with reference to Figure 9). In addition, the console may be mounted to the headliner of the vehicle and a latch on the back of the docking member holds the video display system in a retracted or stowed position (as disclosed on Page 3 Lines 15-16, with reference to Figure 10). The latch assembly permits the video display unit to be uncoupled from the docking member (as disclosed Page 3 Lines 16-18, with reference to Figures 7a-7c).

Both Murphy and Mathias teach the distribution of audio signals by way of wired means (headphones 40a-40n connected to audio component 36, as shown by Murphy in Fig. 2; and connectors 122 as shown in Figure 9 of Mathias), but the combination of Murphy and Mathias does not teach at least one wireless transmitter operatively

coupled to the audio bus that is adapted to wirelessly and simultaneously transmit a plurality of audio programs to a plurality of wireless headphone sets.

In a similar field of invention, Sitnik teaches the audio distribution system shown in Figs. 1 and 2. Sitnik discloses in Col. 11 Lines 18-25 that the system of Figs. 1 and 2 may be implemented using wired or wireless technology. In addition, the system of Figs. 1 and 2 is capable of accommodating multiple users simultaneously, as disclosed in Col. 13 Lines 14-16, and is capable of transmitting a multitude of audio signals simultaneously, as disclosed in Col 11, Lines 45-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fixed and mounted entertainment unit of Murphy to be used as a portable and wireless unit, as taught by Mathias and Sitnik because the user would then have the ability to position the entertainment unit at a customized location. The wireless and self-contained unit taught by Murphy, in view of Mathias and Sitnik would therefore provide the user with an increased mobility because the unit would not be restricted by wires or permanently mounted to a surface (these aspects are discussed by Mathias on Page 2 Lines 19-21).

30. In regards to Claim 30, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein the wireless signals are at least one of radio frequency and infrared signals (Sitnik discloses the use of radio frequency, infrared, and ultrasonic methods of wireless transmission, Col. 11 Lines 19-24).

31. In regards to Claim 31, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein the plurality of input devices comprise at least one of a

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television tuner, a video cassette player (VCP), a compact disk (CD) player, a digital video disk (DVD) player, an AM/FM radio, and a video game player (Murphy teaches video unit 26, CD ROM unit 28, and CD unit 30, as disclosed in Col. 4 Lines 22-35).

32. In regards to Claim 32, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein the plurality of input devices comprises an external audio/video signal processor adapted to input at least one of the audio signals and the video signals from an external source (Sitnik teaches a barcode scanner that, when used to scan the barcode of a CD for example, causes CD jukebox 11 to transmit the audio signal to headphones 36, as disclosed in Col. 22 Lines 16-52; with further reference to Col. 20 Lines 43-56).

33. In regards to Claim 33, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 32, wherein the external source is a portable media device (Sitnik discloses that the barcode scanning device may be attached to wireless headphones, as disclosed in Col. 20 Lines 43-56).

34. In regards to Claim 34, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, further comprising signal processing facilities adapted to perform at least one of signal processing and signal conversion, with respect to at least one of the audio signals and the video signals (Sitnik teaches a number of signal processing and signal conversion techniques, such as various signal modulation schemes, as disclosed in Col. 12 Lines 11-49).

35. In regards to Claim 35, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein said at least one display device is mounted in the

entertainment unit in one of a non-fixed configuration and a fixed configuration (Mathias teaches a display device that may be mounted in a fixed position, as shown in Fig. 9 and 10 or a non-fixed position, as shown in Fig 7a-7c).

36. In regards to Claim 36, Murphy, Mathias, and Sitnik teach the entertainment unit according to claim 29, wherein said at least one display device employs one of a liquid crystal display (LCD), light emitting diodes (LEDs), and a gas plasma (Mathias teaches a display unit that is a Liquid Cristal Display, as disclosed on Page 3 Lines 2-6).

37. In regards to Claim 39, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein said at least one wireless transmitter comprises at least one multiplexer adapted to select a specific input device whose audio output is to be wirelessly transmitted to a given one of the plurality of wireless headphone sets (Sitnik teaches "frequency multiplexed continuous transmission" as performed by combiner 56 of Fig. 4, as disclosed in Col. 12 Lines 11-21).

38. In regards to Claim 40 and 41, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein said at least one wireless transmitter is adapted to wirelessly transmit the plurality of audio programs to each of the plurality of wireless headphone sets as a left audio channel and a right audio channel (Sitnik discloses the transmission of high fidelity stereo and digital stereo signals, as disclosed in Col. 11 Lines 35-44. In addition, it is well known in the art that stereophonic audio signals are transmitted in separate channels).

39. In regards to Claim 42, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein said at least one wireless transmitter is adapted to

wirelessly transmit the plurality of audio programs to each of the plurality of wireless headphone sets as a left audio channel and a right audio channel (Sitnik discloses the transmission of high fidelity stereo and digital stereo signals, as disclosed in Col. 11 Lines 35-44. In addition, it is well known in the art that stereophonic audio signals are transmitted in separate channels), each of the channels having a different frequency for each of the plurality of wireless headphone sets (Sitnik discloses a digitally tuned receiver that uses spread spectrum transmission to dynamically assign channels to each of the wireless headphones, as disclosed in Col. 14 Lines 27-46. In addition, Sitnik's receivers may use phase lock loop (PLL) technology in order to lock onto a given frequency with in the channel, as disclosed in Col. 47-65).

40. In regards to Claim 43, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein the at least one wireless transmitter comprises an optical transmitting device and at least one of said plurality of wireless headphone sets comprises a photosensitive device (Sitnik depicts infrared signal receiver 18 of Fig. 1, as disclosed in Col. 22 Lines 36-39; with further reference to the "photodetector" discussed in Col. 13 Lines 22-33).

41. In regards to Claim 44, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein said at least one wireless transmitter and at least one of said plurality of wireless headphone sets comprises an antenna (antenna 17 of transmission device shown in Fig. 1); (stereo HI FI headphones 36, shown in Fig. 2, consists of receiver electronics antenna 28 and transmitter electronics antenna 29).

42. In regards to Claim 45, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein at least one of the plurality of wireless headphone sets comprises a digital-to-analog converter (Sitnik disclose the transmission of digital audio signals, in conjunction with digital PLL tuner 27 of Fig. 2, as described in Col. 15 Lines 2-26. In addition, since the audio signal is received in digital format and stereo HI FI headphones 36 operate in an analog environment, a digital to analog converter must be provided within Sitnik's wireless receiver shown in Fig. 2).

43. In regards to Claim 46, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein said at least one wireless transmitter is adapted to transmit the plurality of audio programs based on Code-Division Multiple Access (CDMA) technology (Sitnik discloses a digitally tuned receiver that uses spread spectrum transmission to dynamically assign channels to each of the wireless headphones. In addition, each receiver may be assigned an address code, as disclosed in Col. 14 Lines 27-46. These elements are well known in the art to be associated with the Code Division Multiple Access transmission techniques).

44. In regards to Claim 47, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 46, wherein each of the plurality of wireless headphone sets comprises a selector for selecting one of the plurality of audio programs for audio reproduction (Sitnik discloses various techniques for selecting from multiple signals incoming to the receiver, such as an electronically controlled channel selector, Col. 15 Lines 18-53).

45. In regards to Claim 48, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, wherein the at least one wireless transmitter is capable of simultaneously transmitting the plurality of audio programs at different respective frequencies (Sitnik discloses in Col. 12 Lines 11-21 "a large selection of material is simultaneously transmitted over a block of bands" using a broadband transmitter to transmit the signals in a single transmission).

46. In regards to Claim 49, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 48, wherein the plurality of wireless headphone sets are capable of receiving on a plurality of channels the plurality of audio programs transmitted at the different respective frequencies (Sitnik further discloses in Col. 12 Lines 11-21 the large selection of material that is simultaneously transmitted may be individually tuned by mobile receivers in order to output the content, at the desired channel frequency, to the headphones).

47. In regards to Claim 50, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 49, wherein each of the plurality of wireless headphone sets includes a multiplexer for selecting one of the plurality of channels corresponding to one of the plurality of audio programs (Sitnik teaches an "electronically controlled channel selector to dynamically select the channel through which the information is received" Col. 15 Lines 31-33).

48. In regards to Claim 51, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, further comprising at least one other display device operatively

coupled to the video bus (Murphy teaches multiple displays 34a-34n connected to line 35 as shown in Fig. 2, as discussed in Col. 3 Lines 22-25).

49. In regards to Claim 52, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 51, wherein the at least one other display device is capable of displaying a first video program from one of said plurality of input devices at the same time the at least one display device displays a second video program from another one of the plurality of input devices (Murphy discloses in Col. 4 Lines 5-15 "multiple users can simultaneously view different pre-recorded video images" on display units 34a-34n).

50. In regards to Claim 53, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 51, wherein the at least one other display device includes at least one other wireless transmitter operatively coupled to the audio bus; and the at least one other wireless transmitter is capable of transmitting a first audio program from one of the plurality of input devices at the same time the at least one wireless transmitter transmits a second audio program from another one of the plurality of input devices (Sitnik discloses a cellular-type system that may use multiple transmitters, Col. 12 Lines 62-67 and Col. 13 Lines 1-48).

51. In regards to Claim 54, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 53, wherein the first audio program is transmitted on a first frequency and the second audio program is transmitted on a second frequency (Sitnik further discloses in Col. 13 Lines 6-16 that multiple channels can be provided for use and reuse).

52. In regards to Claim 55, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 51, wherein the at least one other display device is positioned remote from the assembly housing (Mathias teaches a display device which may be movably coupled to a console or a docking member and therefore has the ability to be mounted at many places within the vehicle, as disclosed in Col. 2 Lines 20-31).

53. In regards to Claim 56, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 29, further comprising at least one other wireless transmitter operatively coupled to the audio bus, wherein the at least one other wireless transmitter is capable of transmitting a first audio program from one of said plurality of input devices at the same time the at least one wireless transmitter transmits a second audio program from another one of said plurality of input devices (Sitnik discloses a cellular-type system that may use multiple transmitters, Col. 12 Lines 62-67 and Col. 13 Lines 1-48).

54. In regards to Claim 57, Murphy, Mathias, and Sitnik teach the entertainment unit according to Claim 56, wherein the first audio program is transmitted on a first frequency and the second audio program is transmitted on a second frequency (Sitnik further discloses in Col. 13 Lines 6-16 that multiple channels can be provided for use and reuse).

55. In regards to Claim 57, Murphy teaches an entertainment unit for a vehicle (shown in Fig. 3, as described in Col. 5 Lines 8-21), comprising a video bus adapted to couple video signals from at least some of a plurality of input devices (line 35 of Fig. 2 connecting video unit 26, by way of scheduler/controller 24, to multiple display units

34a-34n, as described in Col. 3 Lines 3-34); an audio bus adapted to couple audio signals from at least some of the plurality of input devices (line 37 of Fig. 2 connecting units 29 and 31, by way of scheduler/controller 24, to multiple headphone units 40a-40n, as described in Col. 3 Lines 3-34).

Murphy teaches a display a device that is mounted on the back of each seat of the vehicle (as shown in Fig. 3). The display device is operatively coupled to the video bus and adapted to reproduce the video signals (as seen in Fig. 2, scheduler/controller 24 is in connection with display units 34a-34n by way of line 35, as described in Col. 3 Lines 10-15), but Murphy does not teach that an assembly housing disposed in an interior of the vehicle or at least one display device that is houseable in the assembly.

In a similar field of invention, Mathias teaches a video display system, as shown in Figures 7a-7c, 9, and 10, for use within a vehicle. These figures depict a video display system that can be coupled to a docking member. The docking member is in turn movably coupled to a console that may be mounted at many places within the vehicle (as disclosed in Col. 2 Lines 20-25, with reference to Figure 9). In addition, the console may be mounted to the headliner of the vehicle and a latch on the back of the docking member holds the video display system in a retracted or stowed position (as disclosed in Col. 2 Lines 25-28, with reference to Figure 10). The latch assembly permits the video display unit to be uncoupled from the docking member (as disclosed in Col. 2 Lines 28-31, with reference to Figures 7a-7c).

Both Murphy and Mathias teach the distribution of audio signals by way of wired means (headphones 40a-40n connected to audio component 36, as shown by Murphy

in Fig. 2; and connectors 122 as shown in Figure. 9 of Mathias). In addition, Murphy teaches transmitting a plurality of audio programs from a plurality of input devices (audio supplied by units 28 and 30 to headphone sets 40a-40n, as described in Col. 4 Lines 23-36). The combination of Murphy and Mathias does not teach at least one wireless transmitter operatively coupled to the audio bus that is adapted to wirelessly and simultaneously transmit a plurality of audio programs to a plurality of wireless headphone sets.

In a similar field of invention, Sitnik teaches the audio distribution system shown in Figs. 1. Sitnik discloses in Col. 11 Lines 18-25 that the system of Figs. 1 and 2 may be implemented using wired or wireless technology. In addition, the system of Figs. 1 and 2 is capable of accommodating multiple users simultaneously, as disclosed in Col. 13 Lines 14-16, and is capable of transmitting a multitude of audio signals simultaneously, as disclosed in Col 11, Lines 45-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fixed and mounted entertainment unit of Murphy to be used as a portable and wireless unit, as taught by Mathias and Sitnik because the user would then have the ability to position the entertainment unit at a customized location. The wireless and self-contained unit taught by Murphy, in view of Mathias and Sitnik would therefore provide the user with an increased mobility because the unit would not be restricted by wires or permanently mounted to a surface (these aspects are discussed by Mathias on Page 2 Lines 19-21). In addition, the use of multiple input devices, as taught by Mathias, would provide each user the option to select a desired audio program without

affecting the other users in the system. The multiple input devices would therefore further increase the customization of the entertainment unit by allowing the user to make personalized audio selections.

56. In regards to Claim 59, Murphy teaches an entertainment unit for a vehicle (shown in Fig. 3, as described in Col. 5 Lines 8-21), comprising an audio bus adapted to couple audio signals from at least two input devices (line 37 of Fig. 2 connecting units 29 and 31, by way of scheduler/controller 24, to multiple headphone units 40a-40n, as described in Col. 3 Lines 3-34).

Murphy teaches a display a device that is mounted on the back of each seat of the vehicle (as shown in Fig. 3). The display device is operatively coupled to the video bus and adapted to reproduce the video signals (as seen in Fig. 2, scheduler/controller 24 is in connection with display units 34a-34n by way of line 35, as described in Col. 3 Lines 10-15), but Murphy does not teach that an assembly housing disposed in an interior of the vehicle.

In a similar field of invention, Mathias teaches a video display system, as shown in Figures 7a-7c, 9, and 10, for use within a vehicle. These figures depict a video display system that can be coupled to a docking member. The docking member is in turn movably coupled to a console that may be mounted at many places within the vehicle (as disclosed in Col. 2 Lines 20-25, with reference to Figure 9). In addition, the console may be mounted to the headliner of the vehicle and a latch on the back of the docking member holds the video display system in a retracted or stowed position (as

disclosed in Col. 2 Lines 25-28, with reference to Figure 10). The latch assembly permits the video display unit to be uncoupled from the docking member (as disclosed in Col. 2 Lines 28-31, with reference to Figures 7a-7c).

Both Murphy and Mathias teach the distribution of audio signals by way of wired means (headphones 40a-40n connected to audio component 36, as shown by Murphy in Fig. 2; and connectors 122 as shown in Figure. 9 of Mathias). In addition, Murphy teaches transmitting a plurality of audio programs from at least two input devices (audio supplied by units 28 and 30 to headphone sets 40a-40n, as described in Col. 4 Lines 23-36). Murphy further teaches transmitting audio signals from the at least two input devices to the at least two headphone sets wherein each audio signal is from a different source (as disclosed in Col. 4 Lines 1-36). The combination of Murphy and Mathias does not teach at least two wireless transmitters adapted to wirelessly and simultaneously transmit a plurality of audio programs to a plurality of wireless headphone sets, so that each wireless headphone sets receives an audio signal from a different one of the at least two input devices.

In a similar field of invention, Sitnik teaches the audio distribution system shown in Figs. 1. Sitnik discloses in Col. 11 Lines 18-25 that the system of Figs. 1 and 2 may be implemented using wired or wireless technology. In addition, the system of Figs. 1 and 2 is capable of accommodating multiple users simultaneously, as disclosed in Col. 13 Lines 14-16, and is capable of transmitting a multitude of audio signals simultaneously at different transmitting frequencies using a phase lock loop tuned receiver, as disclosed in Col 11, Lines 45-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fixed and mounted entertainment unit of Murphy to be used as a portable and wireless unit, as taught by Mathias and Sitnik because the user would then have the ability to position the entertainment unit at a customized location. The wireless and self-contained unit taught by Murphy, in view of Mathias and Sitnik would therefore provide the user with an increased mobility because the unit would not be restricted by wires or permanently mounted to a surface (these aspects are discussed by Mathias on Page 2 Lines 19-21). In addition, the use of multiple input devices, as taught by Mathias, would provide each user the option to select a desired audio program without affecting the other users in the system. The multiple input devices would therefore further increase the customization of the entertainment unit by allowing the user to make personalized audio selections.

57. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy, Mathias, and Sitnik as applied to Claim 29 above, and further in view of Berry et al. US Patent (5,311,302) "Berry".

58. In regards to Claim 37, Murphy, Mathias, and Sitnik teach the entertainment unit of Claim 29, but do not teach wherein the at least one display device employs touch screen technology.

In a similar field of invention, Berry teaches an entertainment system for use in a vehicle that includes individual seat interactive video terminals as shown in Fig. 6. Berry's entertainment system delivers both video and audio from a variety of sources as

shown in Fig. 7, with reference to entertainment section 12a to deliver both audio and video, headphones 34 to output audio, and LCD display screen to output video, as disclosed in Col. 3 Lines 18-30. In addition, Berry's system may accommodate multiple users performing multiple tasks, as disclosed in Col. 3 Lines 31-45. Further more, Berry's system consists of touch screen panel 24 to allow the user to make selections based on the video output from LCD display screen 22.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the entertainment unit as taught by the combination of Murphy, Mathias, and Sitnik with the touch screen display panel, as taught by Berry because a touch screen provides a more convenient interface for the user in comparison to a push button switch or remote control (as disclosed by Berry in Col. 1 Lines 46-61).

59. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy, Mathias, and Sitnik teach the entertainment unit of Claim 29 above, and further in view of Motcki et al. US Patent (6,243,645 B1) "Motcki".

60. In regards to Claim 38, Murphy, Mathias, and Sitnik teach the entertainment unit of Claim 29, but do not teach wherein the at least one display device includes one of picture-in-picture and split screen capability.

In a similar field of invention, Motcki teaches an audio-video output device with the capability of accommodating multiple input devices, both audio and video in nature. In addition, the video from multiple sources may be presented to the user on a single

display device using split screen technology (as shown in Fig. 1, with further reference to Col. 2 Lines 20-67).

It would have been obvious to one of ordinary skill in the art at time of the invention to combined the entertainment unit taught by the combination of Murphy, Mathias, and Sitnik with the use of split screen technology as taught by Motcki because the use of a single display to simultaneously present multiple audio-video programs would provide the user with a compact and space saving device, which is ideal in a passenger vehicle application because of space restrictions (as discussed by Moticki in Col. 1 and Col. 2).

Conclusion

61. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, as listed below.

62. Wakai et al. US Patent (5,953,429) teach a video and audio signal distribution system for use in a vehicle. Audio and video information is distributed each user by way of an addressable "seat electronics box".

63. Chan et al. US Patent (6,339,696 B1) teach a wireless headphone device with the capability of receiving audio information sent over multiple frequencies. Chan's headphones use a switch to select between two modes representing two frequency ranges.

64. Dress et al. US Patent (6,519,448 B1) teach a system for distributing audio signals to multiple wireless headphone devices. Each wireless headphone device in the

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system is programmed to a selected frequency using a phase lock loop technique. The frequency of operation is optimally selected by the base station transceiver.

65. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. RYAN whose telephone number is (571)270-5086. The examiner can normally be reached on Mon to Thur, 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. A. R./
Examiner, Art Unit 2623
Wednesday, March 26, 2008

/Scott Beliveau/

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Supervisory Patent Examiner, Art Unit 2623